



## DOE-Provided Contingency Ranges

### Contingency Allowances for Current Working Estimates Construction Projects

	Item Contingency On Remaining Cost Not Incurred
a. <u>ENGINEERING</u>	
Before Detailed Estimates:	15% - 25%
After Detailed Estimates:	10%
b. <u>EQUIPMENT PROCUREMENT</u>	
Before Bid:	
Budget	15% - 25%
Title I	10% - 20%
Title II	5% - 15%
After Award:	
Cost Plus Award Fee (CPAF) Contract	15%
Fixed Price Contract	1% - 5%
After Delivery to Site (if no rework)	0%
c. <u>CONSTRUCTION</u>	
Prior to Award:	
Budget	15% - 25%
Title I	10% - 20%
Title II	5% - 15%
After Award:	
CPAF Contract	15% - 17.5%
Fixed-Price Contract	3% - 8%
<u>TOTAL CONTINGENCY (CALCULATED)</u>	Total of above item contingencies

Source: Chapter 11, DOE G 430.1-1, *Cost Estimating Guide*, March 28, 1997.



## **DOE-Provided Contingency Ranges**

### **Construction Projects**

Unforeseen, uncertain, and unpredictable conditions will exist. Therefore, using the DOE cost code of accounts for construction, the following percentages are provided for planning and budget estimating and are listed in order of increasing complexity:

Land and Land Rights	5% - 10%
Improvements to Land/Standards Equipment	10% - 15%
New Buildings and Additions, Utilities, Other Structures	15% - 20%
Engineering	15% - 25%
Building Modifications	15% - 25%
Special Facilities (Standard)	20% - 30%
Experimental/Special Conditions	Up to 50%

The following considerations which affect the selection in the ranges: state-of-the-art design, required reliability, equipment complexity, construction restraints caused by continuity of operation, security, contamination, environmental (weather, terrain, location), scheduling, and other items unique to the project (e.g., nuclear and waste management permits and reviews).

Source: Chapter 11, DOE G 430.1-1, *Cost Estimating Guide*, March 28, 1997.



## DOE-Provided Contingency Ranges

### Contingency Allowances Guide By Type of Estimate Construction Projects

Type	of	Overall Contingency Allowances % of Remaining Costs Estimate
<u>Not Incurred</u>		
a. PLANNING [Prior to Conceptual Design Report (CDR)]		
Standard		20% - 30
Experimental/Special Conditions		Up to 50%
b. BUDGET (Based on CDR)		
Standard		15% - 25%
Experimental/Special Conditions		Up to 40%
c. TITLE I		10% - 20%
d. TITLE II DESIGN		5% - 15%
e. GOVERNMENT (BID CHECK)		5% to 15% adjusted to suit market conditions
f. INDEPENDENT ESTIMATE		To suit status of project and estimator's judgment

Source: Chapter 11, DOE G 430.1-1, *Cost Estimating Guide*, March 28, 1997.



## DOE-Provided Contingency Ranges

### Guidelines for Environmental Restoration Projects

<u>Activity and Estimate Type</u>	<u>Expected Contingency</u>
<b>Contingency Guidelines for Assessment Phase</b>	
Preliminary Assessment/Site Investigation	Up to 100%
Planning Estimate for All Assessment Activities	
Preliminary Estimate for All Assessment Activities	30% to 70%
Remedial Investigation/Feasibility Study	15% to 55%
Detailed Estimate for All Cleanup Phase Activities	
Planning Estimate for All Cleanup Phase Activities	20% to 100%
<b>Contingency Guidelines for Remediation/Cleanup Phase</b>	
Pre-Design	Up to 50%
Preliminary Estimate for All Remediation/Cleanup Phase Activities	
Remedial Design and Action	0% to 25%
Detailed Estimate for all remediation/cleanup phase activities	

This table shows the estimate types for the assessment and remediation phase of an environmental restoration project and their corresponding expected contingency ranges. No contingency ranges for planning estimates have been provided. The contingency becomes smaller as the project progresses and becomes better defined. Note, that these are only general guidelines based on the level of project definition. A higher or lower contingency may be appropriate depending on the level of the project complexity, technical innovation, market innovation, and public acceptance.

Source: Chapter 11, DOE G 430.1-1, *Cost Estimating Guide*, March 28, 1997.



## **Appendix D: DOE-Provided Contingency Ranges**